

RUMANIA/Chemical Technology - Caoutchouc, Natural and Synthetic. H-31
Rubber.

Abs Jour : Ref Zhur - Khimiya, No 24, 1958, 83651

Author : Budescu, M.

Inst : -

Title : Technical Perspectives of the Rubber Combine "Zhilava".

Orig Pub : 11-a Consf. tehn.-stiint. a ind. usoare. Piele-cauciuc.,
Stiela. (Bucuresti). ASIT, 1957, 140-144.

Abstract : No abstract.

Card 1/1

- 59 -

RUMANIA/Chemical Technology - Chemical Products and Their
Application - General Questions.

H-1

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 25341
Author : Siegler, E., Budescu, M., Bujini, A.
Inst : -
Title : Development Prospects in the Leather-, Rubber-, Glass-
and Fine Ceramics Industries.
Orig Pub : Ind. usoara, 1957, 4, No 8, 320-323
Abstract : No abstract.

Card 1/1

- 1 -

BUDESCU, M., ing.

The factors determining increased production capacity of basic equipment in rubber industry. Industria usocara 3 no.7:281-289 Ag [i.e.Jl] '56.

BUDESCU, M., ing.

Determining the capacity of basic equipment in rubber industry.
Industria usocara 3 no.6:239-243 Je '56.

BUDESCU, M., ing.

News and progress made in the technology of rubber processing.
Industria uscara 3 no.9:369-375 S '56.

BUDESHINSKIY, B.

Spectrophotometric study of the interaction of trivalent aluminum and hexavalent molybdenum ions with xylenol orange. Determination of aluminum and molybdenum in uranium. Zhur. anal. khim. 18 no.9:1071-1074 S 63. (MIRA 16:11)

1. Institute for Nuclear Research, Czechoslovak Academy of Sciences, Rzhesh near Prague.

BUDESHTSKIY, R.I.; SARIGO, B.P.

Investigation of the mechanism of the process of two-
frequency vibration mixing. Trudy Inst. stroi. mekh. i
seism. AN Gruz. 10:141-145 '64. (MIRA 18:11)

BUDESHTSKIY, R.I.

Scattering of strength indices in testing concrete specimens.
Soob. AN Gruz. SSR 38 no.2:343-350 My '65. (MIRA 18:9)

1. Institut stroitel'noy mekhaniki i seysmostoykosti AN GruzSSR.
Submitted July 2, 1964.

BUDESHTSKIY, R.I., inzh.

Vibromixing concrete mixes in forced concrete mixers. Trudy
NIIZHB no.33:80-86 '64. (MIRA 18:2)

1. Institut stroitel'noy mekhaniki i seysmostoykosti AN
Gruzinskoy SSR.

BUDESINSKY, B.

Spectrophotometric examination of the reaction of arsenazo
III with H^+ , La^{3+} , Sm^{3+} , Gd^{3+} , Dy^{3+} and Yb^{3+} . Coll Cz Chem
28 no.11:2902-2913 N°63.

1. Institut für Kernforschung, Tschechoslowakische Akademie
der Wissenschaften, Rez bei Prag.

BUDESINSKY, B.; HAAS, K.

Spectrophotometric study of the reaction of metallochrome-violet A with hydrogen and various metal ions. Acta chimica Hung 39 no.1:7-19 '63.

1. Nuclear Research Institute of the Czechoslovak Academy of Sciences, Rez u Prahy, Czechoslovakia.

BUDESINSKA, M.; RAKOVIC, M.

Determination of sodium metabolism in rats with the radioisotope. [Na 22] Sborn.lek. (Praha) 66 no.4:105-110 Ap'64

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi University Karlovy, v Praze; prednosta doc.dr. Z.Dienstbier.

*

BUDESINSKA, M.; BOUCEK, J.

Methods of measurement of the individual dosages in subjects
working with ionizing radiations; Sborn. lek. 44 no.2:61-68
F '62.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi University
Karlovy v Praze, prednosta doc. dr. Z. Dienstbier.
(RADIOMETRY) (GONADS radiation effects)

BUDESINSKA, M.

Use of changes in the viscosity of high molecular substances
in the dosimetry of roentgen irradiation. Cesk. rentgen.
18 no.2:121-125 M:64.

1. Biofyzikalni ustav fakulty vseobecneho lekarstvi KU v
Praze; prednosta: doc.dr. Z.Dienstbier.

BUDISINSKA-KOMARKOVA, M.; BOUCEK, J.

Scintillation radiation detectors. Sborn. lek. 62 no.6:158-167 1960.

1. Katedra lekárske fyziky a nukleárnej medicíny fakulty všeobecného
lekárstva University Karlovy v Praze, prednosta doc. Z. Dienstbier.
(RADIOMETRY equip. & supply)

KOLAR, M.; SOVA, J.; BUDESINSKA-KOMARKOVA, M.

Changes in blood supply of the extremities following effort
associated with smoking. Sborn. lek. 62 no.6:185-188 1960.

1. Katedra lekárskej fyziky a nukleárnej medicíny fakulty všeobecného
lekárstva University Karlovy v Praze, prednosta doc. dr. Z.
Dienstbier; II. interná klinika, prednosta prof. dr. Fr. Herles.

(EXERCISE)

(SMOKING)

(MUSCLES blood supply)

BUDESINSKY, B.; HAAS, K.

Spectrophotometric examination of the reactions of some metallic chromium derivatives of cresol red with metal ions. Coll Cz Chem 29 no.4:1006-1016 Ap '64.

1. Institute of Nuclear Research, Czechoslovak Academy of Sciences, Rez near Prague.

BUDESINSKY, Bretislav

Important methods of determining stability constants.
Chem listy 58 no.5:517-544 My '64.

1. Institute of Nuclear Research, Czechoslovak Academy
of Sciences, Rez near Prague.

3101. Compleximetric titration in pharmaceutical analysis. X. Indirect determination of amidopyrine. B. Radzinskiy (*Czechosl. Farmac.*, 1955, 4 [2], 71-73).—The complexing of halides and thiocyanates of bivalent metals with isopyrazolones was applied to amidopyrine (I). From an aqueous or 25 per cent. alcoholic solution of I at pH 5 to 6, the stoichiometric complex $[Cd(II)(SCN)_2]$ was quant. pptd. by cadmium thiocyanate. After filtering, excess of Cd in the supernatant liquid was determined by standard methods. Results for the determination of I in pure solution as well as in mixtures containing up to 4 components (with, e.g., phenacetin, caffeine, phenobarbitone and salicylates) are given. Accuracy was normally better than ± 1 per cent., though two 3 per cent. errors are recorded. A. O. Jakubovic

BUDESINSKY, B.

529. Compleximetric titrations in pharmaceutical analysis. XI. Indirect determination of hexamine and isoniazid. B. Buděšinský (United Pharm. Ind., Prague, Czechoslovakia) (*Czechoslov. Farmac.*, 1955, 4 (4), 185-188).—Both hexamine (I) and isoniazid (II) react quantitatively with $\text{Cd}(\text{SCN})_2$ at pH 6 to 7, giving the complexes $[\text{Cd}(\text{C}_4\text{H}_{11}\text{N}_6)](\text{SCN})_2$ and $[\text{Cd}(\text{C}_4\text{H}_4\text{N}_4\text{O})](\text{SCN})_2$, respectively. The determination consists in back-titrating the excess of standard thiocyanate solution after filtering off the ppfd. complex. When I is being determined the amount in excess and the time taken affect the determination but, with II, neither of these nor temp. affects the determination; this is an improvement on the current oximetric methods. *Procedure*.—I (0.1 to 0.3 g) is dissolved in 15 ml of water and made up to 25 ml with 0.5 M $\text{Cd}(\text{SCN})_2$ soln. After the soln. has been filtered, 10-ml portions are used to back-titrate the excess of thiocyanate. For the determination of II, 0.1 to 0.5 g is used, and the soln., together with 20 ml of 0.25 M $\text{Cd}(\text{SCN})_2$, is made up to 100 ml. Data show that errors are always negative and generally < 0.8 per cent. A. O. JAKUBOVIC

BUDĚŠINSKY, B.

V. 332. Compleximetric titration in pharmaceutical analysis. XII. Indirect determination of some 8-hydroxyquinolines. B. Buděšinsky (United Pharm. Ind., Prague, Czechoslovakia) (Czechosl. Pharm., 1955, 4, 15), 221-222.—The method depends on an excess of metal ions added to soln. of 8-hydroxyquinolines thus pptg. the complex. The excess of cations is then back-titrated. Zinc (as 0.05 M $ZnSO_4$) was found to be the most suitable metal. For 8-hydroxyquinoline, 6:7-dichloro-8-hydroxyquinoline and 3-chloro-8-hydroxyquinoline the pptn. is quant. at pH 10. For 8-hydroxyquinolinesulphonic acids, soln. of higher concn. must be used, and an acetic acid buffer of pH 4 is best as the pptn. medium. The excess of Zn is titrated with 0.05 M EDTA (disodium salt), with Eriochrome Black T or catechol violet as indicator (the former indicator is preferred). A table of results shows the max. error to be 2 per cent., but in 87 per cent. of the results quoted the error is < $\pm$ 1 per cent. A. O. Jakunovic

Buděšinský B.

MD ✓ Indirect complexometric determination of aminopyrine
and isonicotinoyl hydrazide. B. Buděšinský (Research
Inst. Pharm. Biochem., Prague). *Pharmazie* 10, 597-9
(1955).—Aminopyrine (I) and isonicotinoyl hydrazide (II)
are pptd. as insol. complexes at pH 5-6 with excess of
CdI₂ or, preferably, Cd(CNS)₂. After sepg. the ppt., the
excess of Cd in the soln. is detd. complexometrically. One
may thus det. I in a mixt. with purine alkaloids, barbituric
acid derivs., salicylates, acrophapetidin, thiamine-HCl,
butarolidine, and p-sulfamoylbenzoic acid. The extn. of
II is easier and more selective than by the usual oxidimetric
detns. 17 references. G. M. Hocking

BUDESINSKY, B.

"Complexometry in organic analysis. I. Iodobismuthate precipitations"

Chemické Listy. Praha, Czechoslovakia. Vol. 49, no. 10, Oct 1955

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclass

Complexometric titrations (chelometry). XIV. Dipyrrolic thiocyanate as a standard in complexometry. B. Hudlický (Výzkumný ústav farm. biochem., Prague). *Chem. Zvesti* 9, 1725-7 (1955); cf. *C.A.* 49, 15017d. To a boiling soln. of 70 g. Ni(SCN)_2 in 250 ml. redist. H_2O add 100 g. $\text{C}_4\text{H}_7\text{N}$, and immediately with stirring a boiling soln. of 133 g. cryst. ZnSO_4 in 250 ml. H_2O , allow the mixt. to stand overnight in the icebox, filter with suction, wash 8 times with 20 ml. 5% aq. CaCl_2 , and dry 3 days at room temp. to give 160 g. dipyrrolic thiocyanate, m. 170° (with the loss of 1 mole $\text{C}_4\text{H}_7\text{N}$), decomp. at 195° . The compd. recrystd. twice from EtOH and dried 3 hrs. at 105° was used as a standard for complexometric titrations with complexon III with Brio-chrome Black T as the indicator.

14. Hudlický

BUDESINSKY, B.

Czechoslovakia/Analytical Chemistry - Analysis of Organic Substances, G-3

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1298

Author: Budesinsky, B., and Vanickova, E.

Institution: None

Title: Complexometric Titration in Pharmaceutical Analysis XIV. Indirect Determination of Theophylline, Theobromine, Quinine, "Analergerin," and "Divaskol"

Original

Periodical: Ceskosl. farm., 1956, 1956, Vol 5, No 2, 77-80 (published in Czech with summaries in German, English, and Russian)

Abstract: A method has been developed for the determination of theobromine (I), theophylline (II), quinine (III), "analergerin" (antispasmin) (IV), and "divaskol" ("priskol") (V), based on the precipitation of these substances with a known amount of potassium iodobismuthate (VI), filtration of the precipitate, and back titration of the excess bismuth in the filtrate with a complex (VII); 60-120 mg I (or 150-200 mg V, 100-160 mg III or the sulfate of IV) are dissolved in 10 ml water and

Card 1/3

Czechoslovakia/Analytical Chemistry - Analysis of Organic Substances, G-3

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1298

Abstract: one milliliter concentrated HCl (VIII). Five milliliters of 0.25 M VI are added to the solution and the volume adjusted to 25 ml with water. The mixture is shaken and filtered (in the case of I the mixture is allowed to stand for 10 minutes). The first 5 ml of filtrate are discarded. To 10 ml of the filtrate are added one milliliter of 0.1 N $\text{Na}_2\text{S}_2\text{O}_3$ and 5 ml of an acetate buffer (pH 4.5) and the solution is titrated with 0.05 M VII until the yellow color disappears. For the determination of II, 70-75 mg of the substance are dissolved in 5 ml water and one milliliter of VIII; VI is added and the volume adjusted to 25 ml with a saturated solution of Na_2SO_4 . A blank is run simultaneously. The described method permits the determination of the above-indicated substances in mixtures with barbiturates, salicylates, citrates, phenacetines, and ascorbic acid. For the determination of I in the presence of salts of intermediate and strong bases, the latter must first be precipitated with a 0.25 M solution of mercuric potassium iodide. VI forms constant composition precipitates with I, II, and III at pH 1.2-1.5, and with IV and V at pH 1.2-2.1. The precipitate has the following composition: $\text{I}/(\text{C}_7\text{H}_8\text{O}_2\text{N}_3)\text{H}/_4(\text{BiI}_4)_4\text{BiI}_3$, $\text{II}/(\text{C}_7\text{H}_8\text{O}_2\text{N}_3)\text{H}/(\text{BiI}_4)$, the hydrate of $\text{III}/(\text{C}_{20}\text{H}_{24}\text{O}_2\text{N}_2)\text{H}_2/_4(\text{BiI}_4)_5\text{I}_3$ hydrochloride,

Card 2/3

Czechoslovakia/Analytical Chemistry - Analysis of Organic Substances, 3-3

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1298

Abstract: IV $[(C_{17}H_{19}N_3)H_2]_4(BiI_4)_3I_5$ sulfate, V $[(C_{10}H_{12}N_2)H]_3(BiI_4)_2I$. For
Communication XIII see Referat Zhur - Khimiya, 1956, 36157.

Card 3/3

Budesinsky, B.

Czechoslovakia/Analytical Chemistry - Analysis of Organic Substances 3-3

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 8615

Author : Budesinsky, B. and Vunickova, E.

Inst : Not given

Title : The Application of Complexometric Titration to Pharmaceutical Analysis. XVIII. The Selective Determination of Quinine Hydrochloride.

Orig Pub : Ceskosl. farmac., 1956, Vol 5, No 5, 277-279 (in Czech with summaries in German, Russian, and English)

Abstract : The determination of quinine hydrochloride (I) is based on its precipitation from a mixed acetone (II) and benzene (III) solution with a freshly prepared CaCl_2 solution; the precipitate is filtered, dissolved in water, and titrated with complexone III (IV). A 10-30 mg sample is dissolved in 3 ml II, and 3 ml III (or toluene) and 2 ml 0.05 M CuCl_2 in II are added to the solution. The precipitate which is formed is filtered through an A3 crucible, washed three times with a mixture of II and III (1:1), and dissolved in ~50 ml boiling water. The solution is cooled, 6 drops of 25% ammonia and ammonium purpurate are added, and the solution titrated

Card 1/2

-55-

Czechoslovakia/Analytical Chemistry - Analysis of Organic Substances G-3

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 8615

with 0.01 M IV to a reddish-violet end point. The precipitate which is formed has the composition $(C_{20}H_{25}N_2O_2) \cdot CuCl_2 \cdot xCH_3COCH_3$; on heating to 61° under vacuum, the combined II is given off and the precipitate melts at 156° . The determination of I by the above-indicated method has been carried out in mixtures with cinchonine, ephedrine, and papaverine hydrochloride, quinidine sulfate, acetylsalicylic acid, phenacetine, caffeine, and codeine phosphate. When ascorbic acid is present, it is removed in the form of a precipitate insoluble in II and III. For Communication XIV see RZhKhim, 1957, 1298.

(Vyzk. ustav farm. biochem. Prague)

Card 2/2

-56-

✓ Complexometric titration in pharmaceutical analysis
 XVI. Semimicrodetermination of narcotine, papaverine, codeine, strychnine, and brucine. B. Budžinský (Výzk. ústav farm. biochem., Prague). *Českoslov. farm.* 5, 570-81 (1956); cf. *C.A.* 51, 3931c. — The method is based on the pptn. of acid solns. of narcotine (I), papaverine (II), codeine (III), strychnine (IV), and brucine (V) with Bi-ethylenediaminetetraacetate and KI. The liberated ethylenediaminetetraacetic acid was titrated with $ZnSO_4$. The alkaloid base (30-40 mg.) was dissolved in 0.5N HCl, which was dild. to 5 ml. Five ml. ethylenediaminetetraacetic acid soln. (10 g. Na_2SO_4 , 19 g. KI, 10 g. disodium salt of ethylenediaminetetraacetic acid, and 9 g. $BiCl_3$ were dissolved in 800 ml. redistd. H_2O , the soln. filtered, and dild. with H_2O to 1000 ml.) was added under stirring, and after 5 min. standing the soln. was centrifuged at 2000 r.p.m. From the clear soln. 7 ml. was mixed with 30 ml. $Na_2B_4O_7$ buffer soln. at pH 8.1. Eriochrome Black T added, and the soln. titrated with 0.01M $ZnSO_4$ to a red color. A blank was carried out as above, but the color was converted to blue. One ml. 0.01M $ZnSO_4$ soln. corresponds to 6.748 mg. anhyd. I-HCl, 5.638 mg. II-HCl, 5.960 mg. III-phosphate, 5.961 mg. IV-nitrate, or 6.862 mg. V-nitrate. The method is accurate to within $\pm 1.5\%$.

K. Macek

BUDESINSKY, B.

BUDESINSKY, B. Complexometry in organic analysis. I. Precipitation with potassium bismuth iodide. In German. p. 146. Vol. 21, No. 1, Feb. 1956. SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT. COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. Praha, CZECHOSLOVAKIA.

SOURCE: EAST EUROPEAN ACCESSIONS LIST (EEAL) VOL 6, NO 4, APRIL 1957

Budesinsky, B.

✓ 2953. Compleximetric titrations. XIV. Zinc
dipyridine dithiocyanate as standard in complexi-
metric titrations. B. Budešinský (Pharm. &
Biochem. Res. Inst., Prague, Czechoslovakia).
Coll. Czech. Chem. Commun., 1956, 21 (1), 255-
257. —The preparation of zinc dipyridine dithio-
cyanate $[Zn(C_5H_4N)_2(SCN)_2]$ in a pure state is
described. The compound is said to be particularly
suitable because of its purity, stability and high
equivalent for the standardisation of EDTA. The
end-point, with Eriochrome black T or murexide as
indicator, is very good. P. S. Sraess

BUDESINSKY, B.

BUDESINSKY, B. Veratrum alkaloids, V. Synthesis and structure of some new esters of veracevine, cevagenine, and cevine; partial synthesis of cevaccine and veratridine. p. 603. Vol. 50, no. 4, Apr. 1956. CHEMICKÉ LISTY. Praha, Czechoslovakia.

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

1024. Compleximetry in organic analysis. II.
Determination of amino acids and peptides. B.
Buddštnaký (Res. Inst. Pharm. and Biochem.,
Prague, Czechoslovakia). *Chem. Listy*, 1956, 50 (8),
1236-1240.—The simple method developed consists
in treating the amino acid or peptide with a suspen-
sion of copper phosphate and titrating the Cu in
the soluble complex formed with EDTA. *Procedure*
—To 5 ml of the soln. to be determined (containing
0.15 milli-equiv. of amino acid or peptide) in a
centrifuge tube (10 ml) add a freshly prepared sus-
pension of copper phosphate (5 ml), mix well, set
aside for 5 min., then centrifuge for 5 min. Transfer
7 ml of the supernatant liquid to a titration flask,
add 1 M HCl (1 ml) and three drops of 1-(2-pyridyl-
azo)-2-naphthol (PAN) soln. (1% ethanolic) as
indicator and titrate with 0.01 M EDTA (disodium
salt) till the violet colour changes to yellowish-
green. Carry out a blank determination. The
complexes of various peptides and amino acids
were isolated and analysed, and their structure is
discussed.
J. ŽYKA

Budesinsky, B.

1679. Compleximetry in organic analysis. III.

Determination of quaternary ammonium salts.

B. Budešinský and E. Vaníček. *Průmysl*

Pharm. and Biochem. Prague, Czechoslovakia.

Chem. Listy 1968, 60 (8) 1241-1243. Inorganic

addition products are formed by K_2CdI_4 with

quaternary ammonium salts; the excess of the

reagent can be determined compleximetrically.

Procedure—Transfer a suitable amount of the sample

(1.5 to 1.8 milli-equiv.) to a 50-ml volumetric flask

and dissolve it in H_2O . Add one drop of methyl

red soln. then HCl or KOH soln. until the soln. is

just alkaline. Add 20 ml. of H_2O and, with stirring,

0.1 M K_2CdI_4 (10 ml). Mix well, make up to vol.,

and filter through a dry filter. Discard the first

10 ml of the filtrate, and to the next 25 ml add

2 ml of buffer soln. (aq. NH_3 and NH_4Cl , pH 9)

and Eriochrome black T as indicator; dilute with

50 ml of H_2O and titrate with 0.01 M EDTA till

the colour changes to blue. Carry out a blank.

Many quaternary ammonium salts were determined

by this method, with good results. The composition

of the ppt. is dependent on pH. J. Závka

Rm

Budeinsky, Stepan

Complexometry in organic analysis. IV. Semimicrodetermination of nitro and nitroso groups. Wladislaw Budeinsky (Pharm. Biochem. Research Inst., Prague). *Chem. Abstr.* 50, 1931-5(1954); cf. *C.A.* 50, 14482i. - Quant. analytical evaluation was made of the reaction of nitro compds. represented by PhNO_2 and MeNO_2 with Zn, Cd, Hg, Sn, Pb, Cu, Ni, and 2% Zn-amalgam in 0.2M HCl. A quant. method was worked out based on the reaction with metallic Cd. The amt. of Cd dissolved corresponding to the no. of $-\text{NO}_2$ and aromatic $-\text{NO}$ groups is detd. by complexometric titration with 0.05M ethylenediaminetetraacetic acid and Eriochrome T as indicator. The procedure is carried out in a CO_2 atm. and a blank is recommended to eliminate the effects of air O . Aliphatic nitroso compds. and azo compds. cannot be detd. by this method. L. J. U.

Chem

PM mk

7
✓ New modification of the semimicrodetermination of the acetyl group. Biseriav Budinský (Pharm. Biochem. Research Inst., Prague) *Chem. Listy* 50, 1636-40 (1956)

Chrom Construction and function is described of an automatic app. for the distn. under const. vol. in N atm. of AcOH liberated by hydrolyzing Ac compds. with dilu. H_2SO_4 . The method of quant. distn. was superior to other procedures. AcOH is then detd. acidimetrically since the iodometric titration is accompanied by side reactions. *L. J. Urbánek*

PM rck

246. Determination of 4-*n*-butyl-1,2-diphenylpyrazolidine-3,5-dione (phenylbutazone). *J. P. (an-
cik, L. Kraus, B. Hudcovsky and O. Cankova (Res.
Inst. Pharm. and Biochem., Prague, Czechoslovakia). Ceskosl. Farm., 1957, 6 (2), 105-108.*
The method is based on the addition of Br to the double bond of the enol form of phenylbutazone (I). *Procedure*—The sample (200 to 300 mg of I) is dissolved in glacial acetic acid (30 ml), HCl (5 ml) and 20% KBr (5 ml), and titrated with 0.1 N KBrO₃. The end-point is determined potentiometrically. A semi-micro determination can be carried out with 0.01 N KBrO₃. If an excess of 0.1 N KBrO₃ (25 ml) is added, the free Br₂ is removed by 1% aniline soln. (5 ml) and, after 10 min., KI (1 g) is added, and the KBrO₃ is determined by titration with 0.1 N Na₂S₂O₃ (starch as indicator). Before the end-point is reached, the soln. should be diluted to 50 ml with H₂O. An acidimetric titration with ethanolic 0.1 N NaOH (to phenolphthalein) is possible. J. VORACEK

6
1-4E3d
1-4E4j

1/1 12

1. 250. Determination of 6-mercaptopyrimidine. F. Jančík, B. Badašnický and O. Čížová (Res. Inst. Pharm. and Biochem., Prague, Czechoslovakia). *Czechoslov. Farm.*, 1957, 6 (2), 108-110. — 6-Mercaptopyrimidine (I) can be titrated either (a) bromometrically or (b) iodimetrically, the SH group being oxidized in both methods. *Procedure*—(a) Dissolve I (30 to 40 mg) in 6 N H₂SO₄ (20 ml), add exactly 25 ml of 0.1 N KBrO₃ and set aside in the dark for 15 min. Then add KI (1 g) and after 5 min. titrate the liberated iodine with 0.1 N Na₂S₂O₃ with starch as indicator. (b) Dissolve I (50 to 100 mg) in twice-distilled H₂O (15 ml) and 6 N NaOH (10 ml). Then titrate with 0.1 N iodine, with potentiometric indication. Hypoxanthine does not interfere. Both methods are accurate to within ±0.3%, and are recommended for inclusion in pharmacopoeias. J. Volke

5
1-4E3d
1-4E4j

1/1 No

BUDESHINSKY, B.

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic Substances

E-3

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, No 7680

Author : Budeshinsky, Vanichkova

Inst : Not Given

Title : The Determination of Cis- -Methoxy- - Ethoxy Methyl Acrylonitrile.

Orig Pub : Ceskosl. farmac., 1957, 6, No 6, 305-307

Abstract : The method for the determination of cis- -methoxy- - ethoxymethylacrylonitrile (I) in the presence of its transomer and acrylonitrile is based on the greater chemical activity of (I) in respect to the reaction of bromine addition catalyzed by pyridine and mercury.

The reaction is carried out in glacial CH_3COOH and the excess of bromine is determined (2 minutes after the addition of KI) by titration with thio-sulfate. The error in the determination of (I) in the presence of its transomers and acrylonitrile is $\leq 2.4\%$.

Card : 1/1

CZECHOSLOVAKIA / Analytical Chemistry. Analysis of Organic Substances.

E-3

Abs Jour : Ref Zhur - Khim., No 15, 1958, No 50064

Author : Jancik, Fedir; Budesinsky, Bratislav.

Inst : Not given

Title : Determination of Methyl Ester of Phenylmalonic acid in the Presence of Methyl Ester of Phenylthylmalonic Acid.

Orig Pub : Coskosl. farmac., 1957, 6, No. 10, 590-592.

Abstract : The quantitative determination of methyl ester of phenylmalonic acid (I) in the presence of methyl ester of phenylthylmalonic acid (II) is based on the alkaline hydrolysis of I to $C_6H_5CH_2COOCH_3$ in 28% alcohol at 21° . Under these conditions, II is not hydrolyzed. A sample weighing 200 plus/minus 5 mg is dissolved in 10 ml of 95% alcohol, 25 ml of 0.1 N NaOH is added and the solution is stirred at 21° for 30 min. Having added 20 ml. of water, the excess

Card 1/2

BUDESINSKY, B.

"New modification of the semimicrodetermination of the acetyl group. In German."

p. 1440 (Collection of Czechoslovak Chemical Communications. Vol. 22, no. 5,
Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions EEAI) LC, Vol. 7, no. 7, July 1958

BUDESINSKY, B.

"Effect of the volume of precipitates during precipitation reactions in quantitative analysis. In Russian."

p. 1674 (Collection of Czechoslovak Chemical Communications, Vol. 22, no. 5, Oct. 1957, Praha, Czechoslovakia.)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 7, July 1958

BUDESHINSKY

Czechoslovakia / Analytical Chemistry.
General Problems.

E-2

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4259

Author : Budeshinsky

Title : On the Problem Concerning The Influence of
the Volume of the Precipitate in Precipitation
Reactions in Quantitative Analysis

Orig Pub: Chem. Listy, 1957, 51, No 1, 166-168

Abstract: Equations are derived for the calculation of
the errors arising due to the volume of the pre-
cipitate when an aliquot of the precipitated
solution is taken for the further analysis, and
the conditions are found when these errors have
the least value. In the equation for the cal-
culation of the result of the analysis $A \pm 100$
 $FV (b-a)/nv$ where, (A-- result in percent

Card 1/3

Czechoslovakia / Analytical Chemistry.
General Problems.

E-1

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4259

E - equivalent of the part to be determined
V - volume of the precipitated solution
v - volume of the aliquot, n - weight of the sample

b - volume of the reagent etc. used in the blank

a - volume used in the experiment without accounting for the volume of the precipitate).

By including this value (w) the equation for A^* is found to be $\pm 100 E [Vb-a (V-w)] / n.v.$
Volume of the precipitate is proportional to the weight of the sample which makes possible the calculation of the volume from the two determinations with two different weights (n, n') according to the equation $w = Vn (A' - A) /$

Card 2/3

Czechoslovakia / Analytical Chemistry.
General Problems.

E-1

Abs Jour: Ref. Zhur - Khimiya, No. 2, 1958, 4259

($A'n'-An$). By including $B = 100 \text{ EVb}/A*v$ and $k = n/w$ constant, the conditions for the minimum error are found: if $b>a$ then y minimum $= - \lim_{n \rightarrow 0} n + bA* \cdot \int (B = n)/(V_k - n) = 0$: if $b < a$ then y minimum $= - \lim_{n \rightarrow 0} n + 0$. $A*(B+n)/(V_{k-n}) = 100 \text{ Eb}/vk$. In the first case the weight of the sample should be as near as possible to the B value, in the second case it should be as small as possible. The values of the errors were calculated for both cases using the average k value (approximately 1000 mg./ml.) and $V = 100 \text{ ml.}$ and with various weights and equivalents. The calculated results agree well with those obtained experimentally.

Card 3/3

Budesinsky, BRETISLAV

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of Organic Substances.

E-3

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24901

Author : Budesinsky Bretislav

Inst :

Title : Complexometry in Organic Analysis . V. Determination of C C Bonds by Means of Hg(2)-Acetate.

Orig Pub : Chem. listy, 1957, 51, No 2, 259-263

Abstract : A new method is proposed for the determination of C C bond, which is based on the known reaction with Hg(2)-acetate (I) in CH OH medium. The reaction is conducted in the presence of a catalyst --- the etherate of boron fluoride (C H)O .BF (II), at room temperature or with heating. Excess I is determined by complexometric titration of Zn ions displaced by the Hg ions from the Zn complexonate (III). About 0.5 me [?] of the substance being analyzed are dissolved in 10 ml of 0.05 M

Card 1/2 *Res. Inst. Pharm. & Biochemistry
Czech.*

Budesinsky, Bretislav

CZECHOSLOVAKIA/Analytical Chemistry - Analysis of
Inorganic Substances.

E-2

Abs Jour : Ref Zhur - Khimiya, No 8, 1958, 24705

Author : Budesinsky Bretislav

Inst : -
Title : Complexometric Titrations (Chelatometry). XXVII. Naphthol
Violet a New Simple Complexometric Indicator.

Orig Pub : Chem. listy, 1957, 51, No 4, 726-729; Sb. chekhosl. khim.
rabot, 1957, 22, No 5, 1579-1583

Abstract : It was found that a suitable complexometric indicator is
the 4-(p-nitrophenylazo)-2-bis-(carboxymethyl)-aminome-
thyl-1-naphthol which the author designates as "naphthol
violet" (I). Synthesis of I is readily achieved by the
Mannich reaction from 4-(p-nitrophenylazo)-1-naphthol and
Na-iminodiacetate. In view of limited solubility of the
free acid and the instability of the alkaline solutions,
I is utilized in the solid state in admixture with NaCl

Card 1/2

2

BUDESINSKIY, B.

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khin., No 23, 1958, 77189.

Author : Dudcsinsky, Bratislav.

Inst :

Title : Complexometric Titration (Chelatometry). XXXVII.
Glycinenaphthol Violet - New Chelatometric Indicator.

Orig Pub: Chem. listy, 1958, 52, No 2, 247-249.

Abstract: Glycine-naphthol Violet $\left[4-(\text{nitrophenylazo})-2\text{-glycinomethyl-1-naphthol} \right] \text{ (I)}$, which is easily prepared of 4-(n-naphthophenylazo)-1-naphthol, Na-aminoacetate and formaldehyde by Mannich's reaction, is proposed as a new complexometric indicator. I is colored red-orange at pH = 2 to

Card : 1/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77189.

6, red-violet at pH = 7 to 10 and blue at pH = 10.5 to 12. I with Cd^{2+} , Pb^{2+} , Co^{2+} , Ni^{2+} , Cu^{2+} and Mn^{2+} at pH above 10.5 produces red-violet complexes, which makes the direct titration of these cations possible with the exception of Pb^{2+} with ethylenedinitrylotetracetic acid (II). 20 ml of 25% aq. NH_4OH and a few mg of the indicator (I mixed with KNO_3 in the proportion of 1 to 100) are added to 50 ml of an approximately neutral $5 \cdot 10^{-5}$ to $1 \cdot 10^{-3}$ M solution of the corresponding cation and the mixture is titrated with 0.05 M II solution until the red-violet color changes into blue. In the case of Mn^{2+} determination, about 2 g of solid $\text{NH}_4\text{OH} \cdot \text{HCl}$ is added to

Card : 2/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

3

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77189.

the solution to be titrated before the addition of NH_4OH in order to avoid the oxidation of Mn. Complex-forming anions (for example, great amounts of Cl^- at the determination of Cu) interfere with the determination. The metallochromic properties of I are weakened by its resonance system, therefore, that indicator is especially suitable for the titration of strongly complex-forming cations (Ni^{2+} , Co^{2+} and Cu^{2+}). I considerably surpasses Naphthol Violet in its indicator properties, but, same as the latter, it has the disadvantage consisting in an excessively high pH of the acid-alkaline transition, and renders the determination of, for ex-

Card : 3/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77186.

Author : Dudesinsky, Dretislav.

Inst :

Title : Simple Metallochromic Indicators of Eriochrome Black T Type.

Orig Pub: Chem. listy, 1958, 52, No 2, 250-254; Collect. czechosl. chem. commun., 1958, 23, No 5, 895-900.

Abstract: The possibility of using the following compounds as metallochromic indicators was studied: 4-(o-oxyphenylazo)-resorcin, 4-(5-sulfo-2-oxyphenylazo)-resorcin, 4-(n-nitro-o-oxyphenylazo)-resorcin, 1-(o-oxyphenylazo)-2-naphthol (I), 1-(5-sulfo-2-oxyphenylazo)-2-naphthol (II), 1-(n-nitro-x-oxyphenylazo)-2-naphthol (III), 2-

Card : 1/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khin., No 23, 1958, 77186.

(o-oxyphenylazo)-1,5-dioxynaphthalene (IV) and 2-(5-sulfo-2-oxyphenylazo)-1,5-dioxynaphthalene (V). All these compounds have a chelate groupation same as that of Eriochrome Black T, but they are simpler in chemical respect. They are used for analysis usually mixed with NaCl (1:100), because their solutions are weakly stable in the majority of cases. According to the changes of color depending on the pH and on the presence of individual cations, the following compounds are suitable as complexometric indicators: I and II for the determination of Ca and Sr; III for the determination of Zn and Cd; IV for the determination of Mg, Zn, Cd, Ca and Mn; V for the determination of Mg, Zn, Cd, Pb and Mn. The determinations are

Card : 2/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic Substances.

E

Abs Jour: Ref Zhur-Khim., No 23, 1958, 77186.

carried out in the presence of these indicators by direct titration with 0.05 to 0.01 M solutions of EDTA in NaOH medium (I and II), or NH_4OH medium (III), or Schwarzenbach's buffer solution (IV and V). $\text{NH}_4\text{OH}\cdot\text{HCl}$ is added to the titrated solution in the determination of Mn, and in the determination of Ca with IV, NH_4OH is used as an indicator instead of the above mentioned buffer solution. I and II may be considered as the simplest of all indicators for the determination of Ca and Sr known so far. But the achieved results indicate that a more substantial progress in this field may be expected only after the introduction of new internal chelate forming

Card : 3/4

CZECHOSLOVAKIA/Analytic Chemistry. Analysis of Inorganic
Substances.

E

Abs Jour: Ref Zhur-Khin., No 23, 1958, 77186.

functional groups into the indicator molecules. -
Karel Kamen.

Card : 4/4

47

COUNTRY	: Czechoslovakia	H-17
CATEGORY	:	
ABS. JOUR.	: RZKhim., No. 16 1959, No.	58106
AUTHOR	: Budesinsky, B. and Vachek, J.	
INST.	: Not given	
TITLE	: The Determination of Nicotinaldehydethiosemi-carbazide	
ORIG. PUB.	: Ceskoslov Farmac, 7, No 5, 241-245 (1958)	
ABSTRACT	: The authors have developed a precise potentiometric method for the titration of the hydrochloride of I (I = the thiosemicarbazide of nicotinaldehyde) (10-50 mg) in 5 M NaOH (25 ml) with 0.1 N iodine solution. Bromatometric, mercurimetric, and selective iodometric and polarographic methods have also been developed. The two last-named methods are used in the determination of I in mixtures with isonicotinic acid hydrazone. Results from the determinations are given.	
	A. Vavilova	
CARD:	1/1	

7
Complexometry in organic analysis. VI. A new method for the determination of organic bases. Břetislav Budtšínský and Jiří Kórbí (Výzkumný ústav pro farmaceutický výzkum, Prague). *Chem. listy* 52, 1618-19 (1958); cf. C.A. 51, 6435k. — A new method is described for the detn. of tertiary amines, quaternary ammonium bases and their salts, and analogous sulfonium derivs. It is based on pptn. reaction with soln. of Bi-complexonate and KI (reagent A) and subsequent titration of the liberated ethylenediaminetetraacetic acid (II) with Th^{4+} salt at pH 2-3. Reagent A is prepd. by dissolving subsequently 10.5 g. di-Na salt of I, 19 g. KI, and 12 g. BiCl_3 , or 19 g. $\text{Bi}(\text{NO}_3)_3$ in 700 ml. double distd. water, shaking the turbid orange soln. 5 min., adding 2 g. NaOH in 20 ml. H_2O , and 4 g. cryst. Na_2SO_4 , dilg. to 1 l., shaking 10 min., and filtering. In semimicrodetn., dissolve 10-50 mg. org. base in 5 ml. 1.5N HCl in a 10-ml. centrifuge tube, add 5 ml. reagent A, stir thoroughly, let stand 5 min., centrifuge 5 min., add to a 7-ml. aliquot, 4 ml. 20% AcONa soln., dil. with 20 ml. H_2O , and titrate with 0.01M $\text{Th}(\text{NO}_3)_4$ with methyl thymol blue. Anions forming Th^{4+} complexes or ppts. interfere. Owing to frequent anomalies each new analyzed compd. must be first studied for interfering influences. L. J. Urbánek

SB
 1/1

5

jjf

BUDESKINSKY, B.

Universal equipment for semimicrodetermination of active hydrogen
and quantitative hydrogenation. In German. Coll.Cz.Chem. 24 no.9:
2948-2953 S '59. (KRAI 9:5)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.
(Hydrogen) (Hydrogenation)

BUDESINSKY, B.; KORBEL, J.

Complexometry in organic analysis. VII. Determination of organic bases by means of a cadmium EDTA complex. Coll Cz Chem 25 no.1: 76-85 Ja '60. (EEAI 9:12)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.
(Complex compounds) (Organic compounds)
(Cadium) (Ethylenedinitrilotetraacetic acid)

BUDESINSKY, Bretislav, dr.

Contribution to the theory of the selection of acid-base
analytic reactions. Acta chimica Hung 32 no.1:29-38
'62.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag;
Institut für Kernforschung der Tschechoslowakischen Akademie
der Wissenschaften, Rez u Prahy, p. Klecany, Czechoslovakia.

BUDESINSKY, B.

Complexometry in organic analysis. IX. Determination of aldehyde, hydroxylamine, hydrazine, and their derivatives by oxidation with mercury(II) complex salts. Coll Cz Chem 26 no.3: 781-787 Mr '61.

1. Forschungsinstitut für Pharmazie und Biochemie, Prag. - Jetzige Adresse: Institut für Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Prag.

(Aldehydes) (Hydroxylamine) (Hydrazine) (Mercury)

BUDESINSKY, B. 1

CZECHOSLOVAKIA

BUDESINSKY, B; GUROVIC, J.

Institute of Atomic Research, Czechoslovak Academy of
Science, Rez by Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 5, 1963, pp 1154-1161

"Spectrophotometric Examination of the Reaction of
Glycine Cresol with H^+ and Cu^{2+} Ions. Determination
of Traces of Copper in Uranium."

CZECHOSLOVAKIA

BUDESINSKY, B.

Institute of Nuclear Research of the Czechoslovak Academy
of Sciences, Rez by Prague

Prague, Collection of Czechoslovak Chemical Communications,
No 7, 1963, pp 1858-1865

"Spectrophotometric Examination of the Reactions of
Bismuth, Thorium, Zirconium, Vanadium, Titan, and
Scandium with Xylenolorange and the Determination of
Traces of These Metals in Urine."

BUDESINSKY, Bretislav

Problems of determining active hydrogen. Chem listy 57 no.1:26-50
Ja '63.

1. Ústav jaderného výzkumu, Československá akademie věd, Řez
u Prahy.

Dr. The effect of the volume of the precipitate in precipitation reactions in quantitative analysis. Břetislav Budšínský

(Výzkumný ústav farm. biochem., Prague). *Chem. listy* 51, 166-S (1957).—The effect of the vol. of the ppt. in pptn. reactions on the accuracy of the detn. is discussed, and equations have been derived to correct the calcn. of the analytical results.

M. Hudlický

BUDESINSKY, Bretislav

Spectrophotometric examinations of the Bi^{3+} , Th^{4+} , Zr^{4+} , V^{5+} , Ti^{4+} and Sc^{3+} reaction with xylenol orange; determination of traces of Bi, Th, Zr, V, Ti and Sc in uranium. Jaderna energie 9 no.5;166 My '63.

1. Ustav jaderného výzkumu, Československá akademie věd, Řez u Prahy.

BUDESINSKY, Bretislav

Determination of carbon in uranium fuels. Jaderna energie
9 no.11:357 '63.

1. Ustav jaderného výzkumu, Československá akademie věd,
Rež u Prahy.

BUDESINSKY, B.

CZECHOSLOVAKIA

BUDESINSKY, B.

Institute of Nuclear Research of the Czechoslovak Academy of
Sciences (Institut für Kernforschung der Tschechoslowakischen
Akademie Der Wissenschaften), Rez by Prague

Prague, Collection of Czechoslovak Chemical Communications,
No 11, 1963, pp 2902-2913

"Spectrophotometric Examination of the Reaction of Arsenazo III
with H^+ , La^{3+} , Sm^{3+} , Gd^{3+} , Dy^{3+} and Yb^{3+} ."

BUDESINSKY, B.

Spectrophotometric examination of the reactions of bismuth, thorium, zirconium, vanadium, titanium and scandium with xlenol Orange and determination of traces of these metals in uranium. Coll Cz Chem 28 no.7:1858-1866 J1 '63.

1. Institut fur Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Rez bei Prag.

BUDESINSKY, B.; ANTONESCU, E.

Spectrophotometric examination of the reaction of lanthanum (III) with methylthymol Blue. Coll Cz Chem 28 no. 12:3264-3270 D '63.

1. Institut fur Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Rez bei Prag (for Budesinsky).
2. Centrul de Cercetari Chimie, Academia R.P.R., Bucuresti, Rumanien (for Antonescu).

BUDESINSKY, B.; GUROVIC, J.

Spectrophotometric examination of glycine cresol red reaction with hydrogen and copper (II) ions; determination of copper traces in uranium. Coll Cz Chem 28 no. 5: 1154-1161 My '63.

1. Institut fur Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Ros bei Prag.

BEZDEKOVA, A.; BUDESINSKY, B.

Spectrophotometric examination of calcium ion reactions with calcion IREA and calcichromium. Coll Cz Chem 30 no.3:811-817 Mr '65.

Spectrophotometric examination of Ca^{2+} -ion reactions with thymolphthalexon. Ibid.:818-823

1. Institut fur Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Rez near Prague. Submitted May 25, 1964.

Budesinsky, B.

CZECHOSLOVAKIA

BEZDIKOVÁ, A; BUDESINSKY, B

Nuclear Research Institute, Czechoslovak Academy of Sciences
(Institut für Kernforschung, Tschechoslowakische Akademie der
Wissenschaften), Řez near Prague

Prague, Collection of Czechoslovak Chemical Communications, No 1,
January 1964, pp 199-206

"Spectrophotometric analysis of the reaction of magnesium ions
with 2-(2'-hydroxy-5'-sulfohexylase) chromotropic acid."

L 31473-66 EWP(j) RM

ACC NR: AP6023164

SOURCE CODE: CZ/0008/65/000/011/1340/1342

AUTHOR: Budesinsky, Bretislav

ORG: Nuclear Research Institute, CSAV, Rez (Ustav jaderneho vyzkumu CSAV)

30
B

TITLE: Systematic classification of complexometric reagents according to J. Ditz

SOURCE: Chemicke listy, no. 11, 1965, 1340-1342

TOPIC TAGS: chemical indicator, chelate compound, spectrophotometric analysis

ABSTRACT: The method of classification of metallochrome indicators can be based on the relationship between individual groups of the chelate forming donor groups to the color producing system of the compound. This method classifies donors into 3 orders: donors of the 1st order forming an integral part of the color system of the substance; donors of the 2nd order combining with 1st order donors and metal ions to form a basic chelate ring; and of the 3rd order, forming secondary chelate rings. Spectrophotometric analysis indicates that even the 2nd and 3rd order donors influence somewhat the color properties of the substance. Characteristics of the donors with respect to this classification are reviewed. Orig. art. has: 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 006 / SOV REF: 002

OTH REF: 003

Card 1/1 mc

CZECHOSLOVAKIA

BUDESINSKY, B

Institute of Nuclear Research, Czechoslovak Academy
of Sciences, Prague-Rez

Prague, Collection of Czechoslovak Chemical Communi-
cations, No 1, January 1967, pp 235-245

"Spectrophotometric determination of effective stabi-
lity constants of very stable complexes."

BUDENCSEVITS, Andor, dr.

Conference on cathode electronics in Kiev. Hir techn 15
no.10:313-314 0 '64.

BUDANOV, A.

BUDANOV, A.

Improve the turnover of railroad rolling stock in harbors.

Mor.flot 17 no.10:8-10 0 '57.

(MIRA 10:12)

1.Zamestitel' nachal'nika Leningradskogo porta.

(Harbors) (Railroads--Freight cars)

MOSHCHINSKAYA, N.K.; VASIL'YEV, N.N.; BUDINSKAYA, N.N.

Problem of the plasticization of polyvinyl chloride with
plasticizers of various chemical natures and their mixtures.
Izv.vys.ucheb.zav.; khim. i khim. tekhn. 7 no. 1:127-131 '64.
(MIRA 17:5)

1. Dnepropetrovskiy khimiko-tekhnologicheskii institut im.
F.E.Dzerzhinskogo, kafedra tekhnologii plasticheskikh mass.

BUDESINSKY, B.; HAAS, K.

Preparation and metallo-chromic properties of some new azo derivatives of chromotropic acid. Chem Cz Chem 29 no.11: 2758-2766 N '64.

1. Institut für Kernforschung, Tschechoslowakische Akademie der Wissenschaften, Rez near Prague.

duced pressure, and the residue poured on ice, neutralized with Na_2CO_3 , extd. with Et_2O , and fractionated, gave 3,3'-g (89.8%), 2-methyl-5-bromo-4-aminopyrimidine, b.p. 115–17°, m. 35–50–40° (from 60% EtOH). VII treated at –5° with NaOCl (Hofmann reaction), and the temp. raised to 83° over 2.5 hrs. gave 2-methyl-5-bromo-4-aminopyrimidine (VIII) as the hydrate, m. 103–4°, but m. 137–7.5° after removal of the H_2O by boiling in CaH_2 ; HCl salt, m. 253–4° (deccupn.). II and III at 50–60° gave 2-methyl-5-chloro-4-pyrimidinocarboxylic acid (IX), m. 180° (deccupn.), after purification through its Et ester (X) (b.p. 98–9°) and crystal, from Me_2CO ; H_2 ester of IX, prepd. via the chloride, b.p. 50–118–19°. IX heated to 150° gave 2-methyl-5-chloropyrimidine, m. 50–7°; IX oxidized with HNO_3 (d. 1.490) gave 5-chloro-2,4-pyrimidinedicarboxylic acid, m. 168–9° (from AcOH). 2-Methyl-5-chloro-4-pyrimidinetrifluoromide, from IX and NH_4OFl , or via the chloride of IX, m. 105–6° (from H_2O). Also prepd. were 2-methyl-5-chloro-4-aminopyrimidine, b.p. 100–3°; 2-methyl-5-chloro-4-aminopyrimidine (X), m. 145–6° [HCl salt, m. 231° (deccupn.)]; purate, m. 231–3°; X (1.44 g.) dissolved in 10 cc. N HCl and 20 cc. H_2O , neutralized to Congo red with 0.1 N NaOH , 0.5 g. 10% Pd-BaSO_4 added, the mixt. hydrogenated, the catalyst filtered off, the filtrate evapd. to a small vol., made alk. with 5 N NaOH , filtered, and the filtrate extd. with CHCl_3 and evapd. gave 0.4 g. (37%) 2-methyl-4-aminopyrimidine (XI), m. 204° (from Me_2CO); Boldt and Al. (C.1., 37, 3434), reported the m.p. 201–3°. Hydrogenation of 2-methyl-6-aminopurine-chloropyrimidine with Pd on C also gave XI. Attempts to replace the halogen in IV, V, VIII, and X by CN , and the NH_2 in VI by CN were not successful. P. M. Downey

Preparation of asymmetric sulfones. Z. Budziluský and J. Šolín. *Collection Czechoslov. Chem. Commun.* 14, 207-73 (1949) (in English).—4-AcNHCH₂SO₂H (I) (4 g.), 0.8 g. NaOH, and 2.8 g. BuH in 22 cc. EtOH, refluxed 1 hrs., and dild. with H₂O gave 2.0 g. 4-AcNHCH₂SO₂Hu, m. 105-6° (from dil. EtOH); deacetylation with dil. HCl gave 4-aminophenyl Bu sulfone (II), m. 108-10° (from 50% EtOH); HCl salt, m. 210-15°. 4-ONC₆H₄Na (8.0 g.), prepd. according to the method of Brand and Gising (C.A. 7, 1722), 0.9 g. BuH, and 50 cc. EtOH-C₆H₆ (1:1), refluxed 2 hrs., gave 4-ONC₆H₄SHu, b.p. 192-5°; oxidation of the crude sulfide with 30% H₂O₂ in AcOH-Ac₂O gave 2 g. 4-nitrophenyl Bu sulfone, m. 50-7° (from di. alc.), which on reduction with Fe and HCl gave II. 4-I NC₆H₄SO₂H (III) (3.2 g.) prepd. according to the method of Jensen and Lundquist (C.A. 35, 3987), 2.8 g. BuH, and 0.8 g. NaOH in 11 cc. EtOH, refluxed 3 hrs., filtered, and dild. with H₂O also gave II. 4-AcNHCH₂SO₂Na (11 g.), 11.0 g. C₁₁H₇Cl, 40 cc. BuOH, and 20 cc. (CH₃OH), refluxed 7 hrs., the mixt. cooled, and the product washed with H₂O, gave 4-AcNHCH₂SO₂C₁₁H₇, m. 105-8° (from EtOH); deacetylation with 22% HCl gave 4-aminophenyl tridecyl sulfone (IV), m. 114-16° (from EtOH); HCl salt, m. 185-90° (decompn.). Oleyl bromide (3.3 g.) prepd. according to the method of Vesely and Chudoblov (C.A. 24, 2428), 2.0 g. I, and 2 cc. 5 N KOH in 20 cc. EtOH, refluxed 4 hrs., filtered while

hot, the filtrate concd. to half its vol., and then dild. with H₂O gave 4-AcNHCH₂SO₂C₁₈H₃₃ as a yellow viscous mass; deacetylation with 5 N HCl gave 4-aminophenyl oleyl sulfone (V), m. 92° (from 90% EtOH); HCl salt, m. 192-7°. I (10 g.) and 7.1 g. 2-chloro-4,6-dimethylpyrimidine (VI) prepd. according to the method of Angerstein [(Ber. 34, 3050 (1901))], refluxed with a mixt. of 10 cc. 5 N NaOH and 10 cc. EtOH 30 min., gave 13.7 g. 4-acetamidophenyl 4,6-dimethyl-2-pyrimidyl sulfone, m. 250° (decompn.); attempts to deacetylate with dil. HCl or NaOH in aq. or alc. medium gave only 2-hydroxy-4,6-dimethylpyrimidine and I. III (14.7 g.) neutralized with 21.7 cc. 5 N NaOH, mixed with 14.2 g. VI in 30 cc. EtOH, dild. with 70 cc. H₂O, heated on the H₂O bath 20 min., and the mixt. cooled and filtered gave 16.8 g. 4-aminophenyl 4,6-dimethyl-2-pyrimidyl sulfone (VII), white crystals from EtOH, m. 282° (decompn.). 4-C₆H₄NC₆H₄SH (7.7 g.), prepd. according to the method of Gattermann (C.I. 7, 660), 7.1 g. VI, and 25 cc. EtOH boiled a short time and 4 cc. 5 N NaOH then added dropwise, gave 12.2 g. 4-nitrophenyl 4,6-dimethyl-2-pyrimidyl sulfide, m. 118-20°; oxidation of the sulfide with 30% H₂O₂ in AcOH-Ac₂O gave the sulfone, m. 195-7° (from EtOH), which on reduction with Fe and HCl gave VII. II, IV, V, and VII had no appreciable bacteriostatic effect against *Mycobacterium tuberculosis*.

P. M. Downey

5

CZECH

Tuberculostatics. VIII. Preparation of 2-carboxy- and
2-aminoamethole. Zdeněk Buděšinský and Alois Sváb.
Collection Czechoslovak Chemical Communications 19, 150-153 (1954)
(in Russian). IX. Allyl and propenyl derivatives of m-
aminophenol. Zdeněk Buděšinský and Eva Ročková.
Ibid. 1960-75 -- See C.A. 49, 3670f. B. J. C.

10 204

BUDESINSKY, Z.

BUDESINSKY, Z.; ROCKOVA, E.

Antituberculosis compounds. IX. Some allyl and propenyl derivatives of m-aminophenol. p. 966. (Collection of Czechoslovak Chemical Communication. Praha. Vol. 19, no. 5, Oct. 1954)

East

SO: Monthly List of European Accession (EEAL), LC, Vol. 4, No. 6, June 1955, Uncl.

CZECH

1. A new synthesis of the pyrimidine component of vitamin B₂: Zdeněk Buděšínský and Jan Kopecký (Výzkumný ústav farm. biochem., Prague). *Chem. Listy* 48, 1804-6 (1954); *Collection Czechoslov. Chem. Commun.* 20, 52-8 (1955) (in German); cf. C.A. 48, 12118f. — Condensation of 2-methyl-1,6-dihydroxypyrimidine (I) with CO(NH₂)₂ and KCCN gave 2-methyl-4,6-dihydroxypyrimidine-5-carboxamide (II) which was transformed by POCl₃ to 2-methyl-4,6-dichloro-5-cyanopyrimidine (III). Treating III with NH₃ gave 2-methyl-4-amino-5-chloro-5-cyanopyrimidine (IV) the hydrogenation of which yielded according to the conditions used 2-methyl-4-amino-5-cyanopyrimidine (V) or 2-methyl-4-amino-6-aminomethylpyrimidine (VI) which was isolated as 2-methyl-4-amino-5-(thioformamidomethyl)pyrimidine (VII). Treating III with Zn dust in EtOH or MeOH gave 2-methyl-4-ethoxy-6-chloro-5-cyanopyrimidine (VIII) and 2-methyl-4-methoxy-5-cyano-6-chloropyrimidine (IX), resp. Controlled hydrogenation of VIII yielded 2-methyl-4-ethoxy-5-cyanopyrimidine (X) which was transformed by NH₃ to V. Treatment of III with excess NH₃ gave 2-methyl-4,6-diamino-5-cyanopyrimidine (XI), treatment of III with NaOEt gave 2-methyl-4,6-diethoxy-5-cyanopyrimidine (XII) which with NH₃ yielded 2-methyl-4-amino-5-cyano-6-ethoxypyrimidine (XIII). Stirring 12.6 g. I, 48 g. CO(NH₂)₂, and 8.1 g. KOCN 3 hrs. at 160°, cooling the mixt. to 100°, mixing with 80 ml. hot water, and acidifying below 50° with 25 ml. 5N HCl gave after reprecip. by HCl from NH₃ soln. 9.1 g. (53.8%) II, m. 280-5° (decomp.) (from H₂O), soly. 0.0635 g. in 100 ml. H₂O at 20° or 2 g. in 100 ml. boiling H₂O. If no KOCN was used the reaction time had to be prolonged to 1

OVER

BUDESINSKY, Z.; EHR, A.

Antituberculous substances. II, Hydrazides of aliphatic &
 α -cyanocarbonic acids. Cesk. farm. 4 no.8:409-412 Oct 55.

1. Z Vyskumného ustavu pro farmácii a biochemii v Praze.

(FATTY ACIDS,

α -cyano deriv. of fatty acid hydrazides, prep.
& eff. on M. tuberc. in vitro.)

(HYDRAZINE, derivatives

α -cyano fatty acid hydrazides, prep. & eff. on
M. tuberc. in vitro)

(MYCOBACTERIUM TUBERCULOSIS, effect of drugs on

α -cyano deriv. of fatty acid hydrazides)

BUDESINSKY, Z.; KOPECKY, J.

New synthesis of the pyrimide component of vitamin B. I⁺₄ n German. p. 52

Vol. 20, no. 1, Feb. 1955
SBORNIK CHEKHOSLOVATSKIKH KHMICHESKIKH RABOT
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

BUDESINSKY, ZDENEK

CZECHOSLOVAKIA / Chemical Technology. Chemical Products
and Their Application- Medicinals. Vitamins.
Antibiotics

J-3

Abs Jour : Referat Zhur - Khimiya, No 2, 1958, 5556

Author : Budesinsky Zdenek

Inst : Not given

Title : Problems of Pharmaceutical Chemistry

Orig Pub : Vesmir, 1955, 34, No 4, 116-118

Abstract : A review of the development and present state of
pharmaceutical chemistry and of work relating to syn-
thetic medicinal preparations.

Card 1/1

BUDISINSKY, Z., Dr.; KORB, J., MUDr.; PERINA, Z., Ing.; technicka
spoluprace L. Zemanova.

Effects of various mercaptopyridines on experimental Q fever
in guinea pigs. Cesk. epidem. mikrob. imun. 6 no.2:89-94
Mar 56.

1. Vyskumny ustav pro farmaci a biochemii v Prase (red.
Dr. Blum) Ustav pro lebarskou mikrobiologii a imunologii
Karlovy university v Prase (prednosta prof. Dr. F. Patocka).

(PYRIDINES, eff.

mercaptopyridines on exper. Q fever in guinea pigs (Cs))

(Q FEVER, exper.

eff. of various mercaptopyridines in guinea pigs (Cs))

BUDESINSKY, Z.; ROCKOVA, E.

Antituberculous substances. XII. Imidazolidine-2-thione-4-carboxylic acids. p. 948.
(Chemické Listy, Praha. Vol. 50, no. 6, June 1956.)

(Pharm. Biochem. Research Inst., Prague).

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

BUDESINSKY, Z.; ROCKOVA, E.

"Antituberculous substances. XII Imidazolidine-2-thione-4-carboxylic acids.
In German."

p. 811 [Collection of Czechoslovak Chemical Communications, Sbornik Chekhoslovatskikh Khimicheskikh Rabot) Vol. 22, no. 3, June 1957
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) IC. Vol. 7, no. 4,
April 1958

~~Zdenek~~ Budesinsky, Z.

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46719

Author : Zdenek Budesinsky, Alois Svab.

Inst :

Title : Antituberculosis Means. XIII. Preparation of 3-Amino-
4-alkoxypropenylbenzenes.

Orig Pub : Chem. listy, 1957, 51, No 5, 961-963; Sb. chekhosl.
khim. rabot, 1957, 22, No 5, 1645-1648

Abstract : The tuberculostatic activity of 3-amino-4-alkoxyprope-
nylbenzenes (I) (from CH_3 to C_4H_9) rises with the rise
of the alkoxylic radical. I-s were synthetised by
subsequent nitration of n-alkoxypropiophenones into
3-nitro-4-alkoxypropiophenones, their reduction with
aluminum isopropylate (II) into 1-(4'-alkoxy-3'-nitro-
phenyl)-propanols-1, which convert through 4-alkoxy-
-3-nitropropenebenzenes into I-s being dehydrated and

Card 1/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46719

reduced. The mixture of 1.95 ml of concentrated HNO_3 and H_2SO_4 was added to the solution of 5.3 g of n-ethoxypropionophenone ($< 5^\circ$) in 15 ml of 90%-ual H_2SO_4 at 0° in the duration of 1 hour and after 30 min of stirring the mixture was poured out on ice, the yield of 3-nitro-4-ethoxypropionophenone (III) was 82%, melting point 78 to 79° . After having boiled the mixture of 28 g of III, 47 g of II and 450 ml of isopropyl alcohol 6 hours, the solvent was distilled off, the residue was dissociated with 160 ml of 3 n. HCl , and the substance was extracted with ether and washed with water, yield of 1-(3'-nitro-4'-ethoxyphenyl)-propanol-1 (IV) - 73.6%, boiling point $155^\circ/0.5$ mm. Water detaches at a 20 hour boiling of the solution of 10.5 g of IV and 0.5 g of I_2 in 60 ml of xylene and 3-nitro-4-ethoxypropionophenone (V) is produced at the yield of 82.8%,

Card 2/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46719

boiling point 125 to 127°/0.5 to 0.7 mm, melting point 36 to 37°. A mixture of 6 g of V, 74 ml of alcohol, 22.8 g of 20%-ual CH_3COOH and 20.7 g of iron filings is boiled 2 hours, neutralized with NaOH and the filtrate, after having been evaporated and acidified, is washed with C_6H_6 , and 3-amino-4-ethoxypropenylbenzene is precipitated with 5 n. NaOH, yield 76.2%, melting point 68.5 to 69.5° (from 50%-ual alcohol). Other I-s were synthesized in the same way. 54.5 g of propoxybenzene is added to a mixture of 142 ml of petroleum ether, 58 g of AlCl_3 and 55.5 g of propionyl chloride at 0° in the duration of 1 hour, and after the usual treatment 36 g of 4-propoxypropiophenone is obtained, boiling point 155 to 158°/11 mm, melting point 29 to 30°. The following was prepared also (the yield in %, the melting point in °C or the boiling points in °C are

Card 3/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

C-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46719

presented): 3-nitro-4-propoxypropiofenone, 61.6, 66;
3-nitro-4-butoxypropiofenone, 60, 61; 1-(3'-nitro-
-4'-propoxyphenyl)-propanol-1, 83, 170/0.5; 1-(3'-ni-
tro-4'-butoxyphenyl)-propanol-1, -, -; 3-nitro-4-propo-
xypropenylbenzene, 80, 125/0.3; 3-amino-4-propoxypro-
penylbenzene (hydrochloride), 66.4, 185 to 186;
3-amino-4-butoxypropenylbenzene (hydrochloride), 79,
173 to 174.
See report XII in RZhKhim, 1957, 34410.

Card 4/4

~~BUDESINSKY, Z.~~
CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46735

Author : Zdenek Budesinsky, Alois Svab

Inst : -

Title : Synthesis of Ethyl Esters and Amides of Substituted
1,3-Dioxynaphthalene-2-Carboxylic Acids.

Orig Pub : Chem. listy, 1957, 51, No 7, 1333-1337

Abstract : The above derivatives were synthesized with a view to
study simple model substances analogous to tetracyclines
by cyclization of compounds of the general formula
 $\text{ArCH}_2\text{COCH}(\text{COOC}_2\text{H}_5)_2$ (I). The ethyl ester of 2,3-dioxy-
-5-methoxynaphthalenecarboxylic acid (II) and its 8-me-
thoxy analogue (III) are active in vitro in respect to
Staphylococcus, Escherichia coli and Pseudomonas pyocy-
anea at the concentration of 1 mg per ml, but they are
inactive in respect to Mycobacterium tuberculosis.

Card 1/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46735

Ethyl ester of 1,3-dioxynaphthalenecarboxylic-2 acid (IV, V acid) [prepared by cyclization of I ($\text{Ar} = \text{C}_6\text{H}_5$) under the action of H_2SO_4] is brominated in glacial CH_3COOH at about 20° , the result is the 4-bromo derivative, yield 91.5%, melting point 168 to 169° (from benzene - alcohol), which, together with an excess of $(\text{CH}_3)_2\text{NH}$ in C_6H_6 (3 hours, at about 20° , and a following treatment with HCl gas), produces hydrochloride of 4-dimethylamino substitute of IV, yield 72.5%, melting point 208 to 209° . Amide of V is synthesized of IV by the action of concentrated aqueous NH_4OH at 70 to 80° in the duration of 4 hours in an autoclave, yield 71%, melting point 174 to 175° (from 5%-ual alcohol). 1.4 g of KCN in 2.5 ml of water is added to 0.02 mole of $2\text{-CH}_3\text{O-5-O}_2\text{NC}_6\text{H}_3\text{CH}_2\text{Cl}$ in 25 ml of alcohol, the mixture

Card 2/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46735

is boiled 3 hours, poured out into water, and the corresponding nitride is obtained, yield 69%, melting point 108° (from alcohol); the nitride is hydrolyzed with 85%-ual H_2SO_4 to amide, yield 27.2%, melting point 165° (from water); the latter is hydrolyzed by boiling (2 hours) with 30%-ual NaOH to acid, yield 66.5%, melting point 145° (from alcohol). $ArCH_2COOH$ are converted into acid chlorides by the action of $SOCl_2$ and acid chlorides are converted into I by a described method (J. Chem. Soc., 1950, 322). The Ar-s, acid chloride yield in % and its boiling point in °C, yield of I in % and boiling point in °C are enumerated in the following: o- $CH_3OC_6H_4$ (Ia). -, -, 48.8, 171 to 175/0.8 mm; 2,5-(CH_3O) $_2C_6H_3$ (Ib), 90, 118/0.8 mm, 45.5 g (from 0.178 mole of acid chloride), -; 2- CH_3O -5- BrC_6H_3 (Ic), 82, 120/0.8 mm, 63, melting point 60 to 61°

Card 3/4

CZECHOSLOVAKIA/Organic Chemistry - Synthetic Organic
Chemistry.

G-2

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46735

(from benzene-petroleum ether 1 : 3); 2-CH₃O-5-O₂NC₆H₃
(Id), 83.5, melting point 45°, 84, melting point
64 to 65° (from benzene-petroleum ether). 0.0065 mole
of Ia is aged 2 days at about 20° with 40 g of polyphos-
phoric acid (VI) (of 23 g of H₃PO₄ and 17 g of P₂O₅),
poured out into galcial water, and II is obtained,
yield 88%, melting point 102 to 103° (from 80%-ual alco-
hol); III is obtained similarly of 1.5 g of Ib and 30 g
of VI, yield 38.7%, melting point 143 to 144° (from
alcohol). The cyclization of Ic and Id in the presence
of VI and HF did not succeed. II and III are converted
into amides under the action of concentrated NH₄OH and
under pressure (see above), yield and melting points
are 67%, 207 to 210° and 55%, 191 to 193° respectively.

Card 4/4

CZECHOSLOVAKIA / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 3, 1959, 8269.

Author : Budosinsky, Z., Svab, A.

Inst : Not given.

Title : Synthesis of Ethyl Esters and Amides of Substituted 1,3-Dihydroxy-Naphthalene-2-Carboxylic Acids.

Orig Pub: Collect. czechosl. chem. commun., 1958, 23, No 6, 1066-1071.

Abstract: See RZhKhim, 1958, 46735.

Card 1/1

BUDSINSKY, Z.; MUSIL, V.

Determination of 2-sulfanilamido-4-methyl-6-alkylpyrimidine.
Coll Cs chem 25 no.12:4022-4028 '59. (EPAI 9:6)

1. Forschungsinstitut für Pharmazie und Biochemie, Prag.
(Sulfanilamide) (Methyl group) (Alkyl groups)
(Pyrimidine)